

# Annual Report 2001 of the Environmental Finance Center Network

Environmental Finance Center Network

2001 Annual Report

## University of New Mexico EFC

**The University of New Mexico EFC was established in 1992 as the first Environmental Finance Center**

The University of New Mexico Environmental Finance Center (UNM EFC) is dedicated to helping state, local, and tribal governments meet environmental infrastructure needs and regulatory compliance through state and local capacity building. Capacity building includes enhancing technical, managerial, and financial capabilities to achieve consistent and sustainable regulatory compliance and to develop sustainable infrastructure.

The UNM EFC assists in local capacity building by:

- Examining alternative approaches to meeting regulatory compliance or environmental infrastructure needs.
- Empowering communities to act as the “drivers” for their own projects.

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- Assisting with procuring professional services.
- Presenting funding alternatives.
- Acting as a bridge between federal, state, local and tribal governments.
- Presenting neutral analyses of issues or projects.
- Gathering stakeholder input.

To complete its projects, the UNM EFC relies on many tools and techniques, including: stakeholder meeting facilitation; internal agency workgroup facilitation; advisory group development; financing alternatives presentation and directories; technology



transfer; charrettes, conferences and workshops; research publications and reports; and one-on-one assistance to state, local, and tribal governments and environmental service providers (e.g., water and wastewater systems.) The UNM EFC attends many conferences, trainings and workshops as a participant, exhibitor, and presenter to gather information to share with its clients and to disseminate information regarding UNM EFC projects that could be of interest and benefit to other entities. The UNM

EFC has been extremely active over the past year and has completed numerous projects, including:

- Capacity Development Activities for Region 6 states.
- Capacity Development Activities for States Outside Region 6.
- Capacity Development for Tribal Water Systems.
- Assistance to New Mexico SRF Applicants.
- Resource-Based or Unified Source Water Protection Project.
- Tribal Operator Certification Institute.
- Clean Air Investment Fund.
- Independent Analysis of Hydroscope Technology for the City of Albuquerque, NM.
- Capacity Development for Nizhnii Tagil, Russia Vodokanal.
- Public Management Finance Program.
- Sustainable Urban Initiatives Charrette.
- Resource Geographic Information System Program.
- ESRI certified ArcView Training Instruction.

## ACCOMPLISHMENTS

### Capacity Development Activities for Region 6 States

During 2001, the EFC continued to assist the EPA Region 6 states of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas with the implementation activities associated with capacity development strategies, as required under the 1996 Safe Drinking Water Act (SDWA) amendments. Assistance included stakeholder meetings, meetings with the states to discuss options for implementing the strategies, and other related activities. The UNM EFC participated in the Region 4 and Region 6 annual capacity development meeting in Atlanta, GA. The

UNM EFC used this opportunity to meet with EPA representatives from Region 4, Region 6, and headquarters as well as representatives from each of the states. The UNM EFC was able to share information between the states and answer questions at the meeting.

### Capacity Development Activities for States Outside of Region 6

This four-year collaborative project with the Environmental Finance Center at Boise State University (EFC-10) was funded through a grant from the USEPA Office of Ground Water and Drinking Water. In the first year of the grant, the UNM EFC assisted New Mexico, Texas, and the Region 6 tribes. In the second year of the grant, the UNM EFC assisted Nevada, Wisconsin, and New York. The assistance to New York was done through the Syracuse EFC in New York. In the third year of the grant, the EFC assisted Nevada, Montana, and Colorado. In the final year of the grant, the EFC concentrated its assistance on Colorado, with some assistance to Nevada. The assistance program varied with each state depending on the state's need. The UNM EFC feels strongly that each state has unique needs with respect to capacity development and that the UNM EFC must tailor its work to meet the particular needs.

Actual assistance may have included: information sharing, review of requirements and deadlines, review and comment on documents, participation in advisory groups, facilitation of stakeholder meetings, facilitation of internal staff meetings, or others.

### Capacity Development for Tribal Water Systems

This assistance effort has evolved into assistance provided directly to particular tribes to help them improve capacity deficiencies. The assistance is tailored for the needs of each tribe and may be requested by a tribe directly or may be requested through a referral from EPA or IHS. Capacity development covers a wide range of areas including: technical, managerial, and financial aspects of water systems.

Under these broad headings, the EFC has provided a wide array of assistance including: developing utility boards, setting utility rates, developing public education campaigns on the need to charge for water, assisting with sampling and analysis, sharing information regarding potential funding sources, providing training classes, helping with preparation of CCRs, and many others. A key component of this year's program was to focus efforts towards improved regulatory compliance. A major concern has been compliance with the Total Coliform Rule (TCR).

To address this issue, the EFC has developed tribal specific TCR training materials, presented TCR training classes, and offered on-site and phone assistance to tribal operators in complying with the rule. In addition, the EFC receives notification any time a tribal water system has had a positive coliform sample and follows up with the tribe to see if they need assistance in addressing the problem.

The EFC has also been working with EPA Region 6 to develop a Comprehensive Performance Evaluation (CPE) process for groundwater systems. As part of this effort the EFC has assisted EPA Region 6 in completing 3 CPEs on tribal water systems – Santo Domingo, Acoma, and San Felipe. The CPE process identifies ways in which a groundwater system can optimize its performance.

In the next year, the EFC will be implementing sanitary evaluation training and will start conducting

sanitary evaluations of tribal water systems. The evaluations will be similar to sanitary surveys, except they will not be regulatory in nature. The intent of this initiative is to train the tribal water system personnel on the factors that are examined during a sanitary evaluation so that they know what items the reviewers will be looking for. In addition, they will be encouraged to examine their system on their own prior to the evaluation and fix/repair/improve any potential deficiency in their system. During the evaluation, the reviewer will examine the system and look for any deficiencies that have the potential to impact the operation of the water system or public health. The intent of the evaluations will not be regulatory in nature, but rather, the evaluations will point out areas where the EFC can assist the water system in improving its operation.

#### **Assistance to New Mexico SRF Applicants**

The UNM EFC has been assisting the New Mexico Finance Authority (NMFA) with trying to bring the State Revolving Loan Fund (SRF) process to small and medium-sized communities in New Mexico. To date, the SRF program has had difficulties moving money to these communities and the EFC has been helping to fill out forms, meet requirements, explain the program, initiate engineering or environmental documents needed for the loans, gather financial information, and market the overall program. The UNM EFC has been able to assist NMFA in greatly expanding the amount of money now targeted for actual water system construction from the SRF program.

**Resource-Based or Unified Source Water Protection Project**

As the lead EFC for this project, the UNM EFC is working with the EFCs in Maryland, North Carolina, Boise State and New York, to develop resource-based or unified source water protection plans for clusters of communities in 8 different states. This project builds upon the work performed under the Mora County Unified Source Water Protection Plan Pilot Project and the skills of the other EFCs in the project.

This project involves assistance in the development of a source water protection council, the examination of potential sources of contamination, determining appropriate source water protection measures that may minimize or eliminate contamination concerns, preparing a unified source water protection plan, and implementing the plan. The EFCs will facilitate stakeholder and council meetings and provide technical information transfer.

The eight states that the EFCs are working in, include: New York, Maryland, West Virginia, North Carolina, Texas, Colorado, Idaho, and Oregon. The UNM EFC is conducting the projects in Texas and Colorado. The Texas project includes water systems around Lake Meredith. This lake is operated by the Canadian River Municipal Water Authority (CRMWA) and supplies water to Amarillo and Lubbock and 9 other communities. The major concerns for source water protection on this project include: oil drilling and exploration, ranching, recreational uses of the lake, and septic systems around the lake.

The project in Colorado focuses on the systems that are pulling water out of the Boulder Feeder Canal. This open canal supplies water to the City of Boulder and a few smaller towns nearby. The open canal is exposed to runoff from agricultural and residential

areas as well as recreational impacts. There is a proposal to increase the recreation in this area that in turn would increase the potential for source water impacts. This issue will be addressed within the context of the source water protection project.

**Tribal Operator Certification Institute**

In January 2001, the UNM EFC kicked off this project to establish and operator certification institute for tribal water system operators. The development of the institute is being guided by a Tribal Utility Advisory Board (TUAB). The TUAB is tribal water system operators from the tribes within New Mexico. Through the establishment of the TUAB, the UNM EFC hopes to have the tribes guide the development of the institute and its components. The TUAB provides an excellent means of feedback in terms of what will work or not work in certifying and training tribal operators.

To date, the institute has developed a tribal operator training calendar that includes all known training in the state, a 12 month pathway to certification, training curriculum for some of the modules associated with the pathway, operating procedures, guidelines for running the program, and a database of certified operators.

**Clean Air Investment Fund**

The El Paso, Texas/Juarez, Mexico/Las Cruces, New Mexico airshed has many problems related to air pollution. Complicating the issue is the bi-national border and the differing regulations on the U.S. and Mexican side of the border. EPA developed an Economic Incentive Program to promote various approaches to address regional air pollution. One of these approaches is a Clean Air Investment Fund.

The EPA Region 6 Border Office in El Paso wants to pilot the idea of a Clean Air Investment Fund (CAIF) for the El Paso/Juarez/Dona Ana County airshed.

A CAIF is a type of Economic Incentive Program that allows sources facing control costs that exceed a designated cost-per-ton benchmark to pay into the fund in lieu of installing the required controls. While sources participating in a CAIF have not installed the required controls, they are otherwise obligated to meet all other regulatory requirements that apply to them. The fees in the fund are managed by a separate entity. The fund manager may be a regulatory agency or a third party. The fund manager uses the pooled payments collected by the fund to seek equivalent and presumably less costly emission reductions. (Economic Incentive Program Guidance, Environmental Protection Agency, January 2001).

The UNMEFC has partnered with the California State University EFC to complete this study. Thus far, the work has involved discussions with stakeholders on both sides of the border, discussions with individuals with particular expertise in establishing an investment fund, and development of a draft of the operating procedures of a Clean Air Investment Fund. The next step is to engage in more dialogue with the Mexican side of the border and to develop a Clean Air Investment Fund Charter. The Charter will include items, such as: authority for creation, scope of activity, managing authority, administrative procedure for using the fund, bylaws governing paying into the fund, drawing on the fund, closure of the fund, federal, state, and local regulations necessary for implementation of the fund. The Charter will provide sufficient information such that EPA or another entity could establish a Clean Air Investment Fund.

#### **Independent Analysis of Hydroscope Technology for City of Albuquerque**

The City of Albuquerque wanted an independent analysis of the cost-effectiveness of using a particular non-destructive pipe analysis technique. The technology can detect certain types of problems in ductile iron and cast iron pipe. A proprietary software is used to make determinations as to which of the problems detected is likely to cause a future leak. The City of Albuquerque wanted to know whether it would be cost effective for them to use this technique within the context of their overall pipe repair and replacement program. Considerations include the fact that only a portion of the City's pipes are cast iron and ductile iron; the types of leaks the City routinely experiences may or may not be detectable with the technology; repairing the pipes with this technology will provide a different pipe life than replacing the pipes; pipe repairs in this manner do not allow for replacement of pipe appurtenances; pipe inspection may prevent breakages that can cause considerable damage to facilities near the break and tremendous water loss; and anticipating breaks would allow the City to be proactive with its repair program.

The EFC conducted this project in two phases. Phase I consisted of examining 5 years worth of City repair data from City repair personnel work logs. This effort examined the types of pipes that were breaking, how they were breaking, the age of the pipe, the location of the pipes, the time out of service, and the cost of the repair. The effort calculated average break rates and costs for repairs for the 5 year period.

Phase II examined the results of a pilot project in which the technology was used on approximately 10 miles of cast iron pipe. This Phase evaluated the cost of the use of the technology and the cost of the recommended repair scenario against continuing with the City's existing program or adopting a hybrid program that blends limited use of the technology with

the City's existing program. This phase looked at life cycle costing to compare alternatives.

### **Capacity Development for Nizhnii Tagil, Russia Vodokanal**

This effort entails a capacity development project for the Nizhnii Tagil Vodokanal in Nizhnii Tagil, Russia. The UNM-EFC arranged, organized, and supported a 13-day study tour in the United States for the Director of the Nizhnii Tagil Vodokanal and two additional people. This tour included visits to Washington, DC; Dallas, Texas; Albuquerque, New Mexico; and Denver, Colorado.

In addition, the UNM EFC provided funding to the Nizhnii Tagil Vodokanal to prepare three studies addressing technical, managerial, and financial capacity improvements to the water system. These reports were completed this year and the project is now finished.

### **Public Management and Finance Program (PMFP)**

The UNM EFC participated with the Syracuse EFC in Minnowbrook, New York to help launch the Public Management and Finance Program (PMFP). Syracuse EFC has developed a new Rural Communities Program that focuses on a variety of areas, including the range of services accessible to communities, the gaps in the delivery of technical assistance, and the disconnect between public policies and the financial and management capacity communities have.

The PMFP offers hands-on technical assistance to rural communities through the development of teams of technical assistance providers. At the PMFP 2001 event, the teams were composed of representatives

from accomplished nonprofit, academic, government, and private organizations that have established histories in providing technical assistance to rural communities. These organizations were brought together in rural upstate New York to provide information, technical assistance and support to small communities in need of assistance in spring 2001.

Specifically, the UNM EFC presented a brief workshop on source water protection and facilitated a roundtable discussion on possible funding and technical alternatives to resolve a serious drinking water issue in a town in New York. The exercise used a real case study to reveal ways of considering alternatives for resolving water system issues.

### **Sustainable Urban Environments Initiative**

On October 3, 2000, as part of the larger Sustainable Urban Environments Initiatives Program Grant, the Environmental Finance Center at UNM hosted a charrette to explore the opportunities to turn negative environmental assets into positive assets. The charrette was held in the western Fifth Ward of Houston, Texas in two locations – an elementary school and a community center – and was co-sponsored by the City of Houston Planning Department. The charrette included a driving and walking tour of the neighborhood to acclimate participants to the issues. The charrette focused on such issues as how to turn areas that are just used as garbage dumps into attractive pieces of property, how to address the incompatible uses of industrial facilities and residential housing, how to encourage companies to share assets (i.e., take the “garbage” from one industry and turn it into the input for another industry.)

The charrette prompted a number of ideas for the community to think about and a draft report was prepared to summarize those ideas. The report was sent out for comments and was revised based on

feedback received. A final report has now been prepared. In addition, the UNM EFC has provided Houston with information on possible grant programs to fund some of the ideas. This project has now been completed.

### **New Mexico Resource Geographic Information System**

The Resource Geographic Information System (RGIS) Program was established by the New Mexico state legislature in 1992 to assist state and local governments with developing and implementing GIS programs. RGIS also supports the goals of the New Mexico Information Technology Council and its associated Geographic Information System Advisory Council. Three UNM public service and research units comprise the RGIS Team including the EFC Director, representing the New Mexico Engineering Research Institute, the Earth Data Analysis Center, and the Bureau of Business and Economic Research.

RGIS facilitates the use of GIS in New Mexico in three ways: mapping, communicating, and educating. First, it provides counties and municipalities with public maps in a format appropriate for the most commonly used GIS software. Second, it assists state and local governments with interactive communication and cooperation in the use of GIS. Third, it educates public organizations about the advantages of GIS and trains them in its use. Thus, RGIS promotes statewide-use of GIS for planning and spatial analysis of current and historical trends throughout the state. For more information refer to the RGIS web page at <http://rgis.unm.edu:8080>.

### **ESRI-Certified ArcView Training Instruction and Trimble GPS Training**

Through the RGIS program and other resources, the EFC provides instructors for ESRI-Certified ArcView Training and Trimble-Certified GPS Training. The Introduction to ArcView GIS course provides instruction in the basic skills needed to use the software's display editing, analysis, and presentation mapping functions. Classes are typically offered quarterly. The GPS Training provides instruction on how to use Trimble GPS equipment, how to download the data, and how to link the GPS data to GIS programs.

### **NEW INITIATIVES FOR 2001**

The new initiatives for the UNM EFC are highlighted below. These initiatives build upon the work efforts of the UNM EFC for the past several years.

#### **Capacity Development Partnering Efforts**

As a natural continuation of some of the UNM EFCs capacity development efforts that have been ongoing since 1996, the UNM EFC will be assisting states with innovative ways to help systems partner. This effort will be going on in Colorado and possibly will start in Nevada during 2001. In addition, the UNM EFC will assist Region 6 states with this effort to the extent that they are interested.

#### **Capacity Development Continuation**

Once the states have developed capacity development strategies, it is vitally important that they implement the activities included in the strategy. To date there has been mixed success in implementing the strategy elements. The UNM EFC intends to

continue providing support to the states to help implement various components of the strategy.

### Capacity Development Activities for the Tribes

As a continuation of the capacity development assistance work for the tribes, the UNM EFC will continue to work with the tribes to increase their technical, managerial, and financial capabilities to operate their water systems. These efforts will include one-on-one assistance, group training, a web site, sampling and analysis assistance, and several other activities.

### Compliance with the Arsenic Standard

The EPA issued its final Arsenic standard which lowered the Maximum Contaminant Level (MCL) from 50 micrograms per liter to 10 micrograms per liter. Arsenic concentrations vary tremendously from state to state and region to region within a state. Western states, such as New Mexico, that rely heavily on groundwater and that have had past volcanic activity are more severely impacted by this standard. The EFC will be working with the Region 6 states and tribes to help address compliance with this standard.

### Bureau of Land Management

The EFC has been in discussions with the Bureau of Land Management in New Mexico to provide assistance to BLM in various ways, including: GIS and GPS training and assistance, community interactions, facilitation of meetings, engineering and environmental studies.

### Rate Setting Training

The EFC has been investigating the ShowMe Ratemaker Software developed by the State of Missouri. It was developed for small water and wastewater systems and is available free of charge. The EFC will be providing two introductory seminars to determine the value of this product for New Mexico systems. If the results of these seminars are positive, the EFC will provide workshops around Region 6.

### State Land Office

The EFC has been in discussions with the State Land Office to provide assistance in the development of Mesa del Sol and La Mesilla. Mesa del Sol is a planned community that has a commercial/industrial portion. Mesa del Sol would like the commercial/industrial component environmentally friendly. The EFC has proposed a charette that would explore ways in which environmentally benign businesses could be attracted to Mesa del Sol. La Mesilla is a piece of buffer land between Mesa del Sol and the Kirtland Air Force Base that will be used for environmental education purposes. The EFC has been assisting the State Land Office in trying to find funding sources for portions of La Mesilla.



## EFC NETWORK COLLABORATIONS

The UNM EFC has collaborated with a number of EFCs this past year on a variety of projects. Those collaborations are listed below.

Project	EFCs Included in Collaboration
Sustainable Urban Environments Initiative	Maryland EFC (lead), Cleveland State EFC, EFC @ UNC and the UNM EFC
Public Management Financing Program	Syracuse EFC (lead), EFC9, <a href="#">EFC@UNC</a> , Maine EFC, UNM EFC
Clean Air Investment Fund	UNM EFC (lead) and EFC9
Resource Based Source Water Protection	UNM EFC (lead), Syracuse EFC, Maryland, Boise State EFC, and EFC @ UNC
Nizhnii Tagil Capacity Development Assistance	Syracuse EFC and UNM EFC
Capacity Development Assistance to States	Boise State EFC and UNM EFC

## CONFERENCES

Name of Conference	Date and Location	EFC Involvement
Region 4/Region 6 Capacity Development Workshop	February 12 – 14, 2001 Atlanta, Georgia	Attended meeting
Jicarilla Nation Workshop	February 15-16, 2001 Dulce, NM	Presented sessions for training
Unified Source Water Protection Workshop	March 5, 2001 Baltimore, MD	Presented sessions for training
Environmental Financial Advisory Board Meeting	March 6 – 7, 2001 Washington, D.C.	Participated in Board Meeting
Environmental Finance Center Network Directors Meeting	March 7 – 8, 2001 Washington, D.C.	Participated in Meeting
Council of State Community Development Agencies	April 23, 2001 St. Louis, MO	EFC Presentation
EPA Regions 7,8,9 and 10 Capacity Development Conference	May 8 –10, 2001 Seattle, WA	Participated in meeting
Albuquerque Area IHS, Office of Environmental Health & Engineering, 2001 Annual Workshop	May 8-11, 2001 Las Cruces, NM	Participated in meeting
EPA Regions 1,2,3,and 5 Capacity Development Conference	May 15 – 16, 2001 Philadelphia, PA	Two EFC Presentations
New Mexico Infrastructure Financing Conference	May 30 – June 1, 2001 Albuquerque, NM	EFC Workshop on Utility Management, EFC on planning committee, EFC Exhibit Table
5 <sup>th</sup> Annual EPA Tribal Environmental Summit	July 18-19, 2001 Dallas, TX	Attended meeting

Drinking Water Academy Source Water Protection Training	October 3, 2001 Chapel Hill, NC	EFC Participated
EFC Network Directors Meeting	October 4 –5, 2001 Chapel Hill, NC	EFC Participated
Association of State Drinking Water Administrators Annual Conference	October 23 – 25, 2001 Baltimore, MD	EFC Participated
New Mexico Environmental Health Conference	October 29-31, 2001 Albuquerque, NM	EFC Presentation
Council of Infrastructure Financing Agencies Annual Conference	November 12 -14, 2001 Louisville, KY	EFC Presentation